

The Turn of the Tide.

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"Science Gossip."

September is eminently a month of rest in England. Its balmy, sunny mornings encourage us to out-door ramblings and exercise. Its fading twilights are no less soothing. One feels as if nature were taking a rest after the hot, eager life of the growing and glowing summer. It is delightful to sweep the dewy grass with well-goloshed feet in search of those edible fungi which now make their appearance so abundantly, because the heavy night dews are favourable to their loose cellular structures. Even the melancholy sadness which comes from beholding the stubble fields, and knowing that the glory of the summer has departed, is allied to pleasurable-ness.

Yes, the tide has turned! Henceforth it will ebb rapidly day by day, to flow and again to flood with the beginning of a year that has to be born! All life is, as poor Kirke White expressed it:—

"Bound in birthdays and in sepulchres."

No poppies stand in the corn. The harvest is all ingathered, and stands in golden stacks in the corners of the stubble fields or near the home farmstead, where the ubiquitous sparrows gather multitudinously, and quarrel, and chatter, and feed all day long. The chaffinches no longer play together in pairs, but in clutches. The yellow-hammer is piping its plaintive cry along the darkening hedge rows, where the blackberries are clustering thick and the hawthorn fruits are reddening for winter use. In the otherwise almost voiceless orchestra of bird-life the song of the robin begins to assume

an attractive prominence, although there is a wintry association with it. The swallow tribes are flitting to and fro with even greater rapidity than ever. Before the month has reached its third week their gathering numbers and fussy chatter will inform us that some important step is about to be taken. Then the house tops and eaves and the telegraph wires (accommodating positions!) as well as gate-posts, railings, &c., will be seen crowded with sitting Parliaments of swallows, some old but mostly young. The latter have never been out of England before, for they were all born here during the summer. Now the old swallows of several years' experience are telling them of the long journey they are all about to make together, beyond other lands and seas to the northern fringe of the Dark Continent, and they are doubtless spinning long yarns to inexperienced martlets about the dangers and difficulties of the journey, and the hair-breadth escapes they have themselves passed through years before the young ones were born. Meantime, if you enjoy that observation of all living creatures which comes from strong sympathy with them, you will see the young birds preening their wings as they listen to the oft-told story; and you cannot but feel they are overwhelmingly anxious for the aerial journey and its adventures to commence. What young creature does not delight when a new chapter in its life is opened out?

Alas! this is the time of departure of the birds! They have brightened the summer by their presence and their songs. September is especially the month of their migration. No out-door observer can avoid noticing all sorts of ornithological changes going on. The starlings begin to assemble in flocks; here and there a new song is heard, that of the wood-lark; the wood-owls begin to hoot in the evening; snipe arrive, to take part in their own shooting; and the arrival of the field-fare is a sure token that summer is over.

The double popping of guns in the stubble and down in the marshes by the river tell us plainly that "sport" is taking the place of natural history collecting. On the heaths and commons the rabbits are being thinned off. The moorlands echo the shots of the grouse and black game sportsmen. The picturesque figures of salmon and trout fishers animate the banks and rocks of our rapid shallow streams. The

flies torment the cattle in the fields on hot days, and irritate us when walking through the damp woods.

The butterflies have gradually become scarcer in the daytime, and the moths in the evening. Some have died off, a few have commenced their winter sleep or hibernation. A hot day or two brings these forth again. Nevertheless, a few new kinds make their appearance now, and are almost characteristic of September. For instance, we may find the canary-shouldered thorn moth, whose larvæ feed on the oak and willow; the September thorn moth, at rest, perhaps, on the oak and birch; the elegant striped hawk moth; the pretty wood leopard, on various trees; the dusk thorn; brindled green, on tree trunks; bearded chestnut moth; the rarer convolvulus hawk moth, haunting the flowers which give to it its name; the herald; figure-of-eight; lunar underwing; the brick moth; gold spot moth (in salt-marshy places), &c.

The green lanes and sunny country hedge-banks, as well as the heaths and commons, are still beautiful with flowers. The pink-striped blossoms of the common convolvulus trail on the driest and most burnt-up of hedge-banks, almost to where we walk. Can anything be more exquisitely beautiful than this unpretending flower? It seems to keep open house for myriads of little black *thrips* and other minute insects; but these are unable to penetrate into the five nectaries or honey manufactories you see represented by the five pits at the bottom of the flower. Only moths with long probosces can get at those desirable stores; the little flies are here to pick up the crumbs and lick the plates, so to speak, after the more important insects have left, and done their work of cross-fertilisation. The red and white champions linger on in the lustier hedge-rows, and will do so right up to Christmas. The golden rod, one of the prettiest and brightest of all our composite flowers, is now at its best. It looks particularly beautiful on the heaths, where the heather is in rich purple bloom; and it is there the wandering herbalist goes to gather it for its many reputed medicinal virtues.

The hedge-rows are now a feast of fat things! What a table is here spread for the birds! No wonder England has so many singing birds, with so many green lanes and other ornithological shelters and granaries. Here the haw-

thorn is ripening its abundant harvest of fruit. Growing in and about it, and festooning its branches with long coral necklace-like beads, is the white bryony, whose pretty leaves are all but gone. The blackberries are everywhere, literally sheeting the hedges, and the luscious fruit glitters in the mellow September sunshine most temptingly. The honey-suckle is flowering for the second time, the noble flower heads mixed up with the small, succulent clusters of red berries, which represent the results of the earlier summer inflorescence. The ivy is blossoming in the woods and hedges, and offering a rich store of honey to make up for its unattractive and uncoloured flowers in the minds of all sensible and matter-of-fact insects. The lovely fruits of the spindle-tree begin to assume their pink and scarlet liveries. The mountain ash is in all its glory, and its abundant masses of coral fruit are set off all the more artistically by its deep green pinnated leaves, the latter resembling those of the common ash so closely that they have obtained for the shrub its popular name, for it really belongs to the order of the roses, and its fruits are therefore very nearly allied in structure to pears and apples. Instead of being poisonous, as some people imagine, the fruit of the mountain ash is edible, and was once used as a conserve.

How is it so many of our fruits are red? They are all green when young, as green as the leaves, and for the same reason. Then they do leaf duty, and help to provide carbonaceous material, by decomposing the carbonic acid gas contained in the atmosphere. If they are not *red*, there is usually some tone or shade of red in most fruits, except those which assume a bluish-black colour when ripe. Even they have to pass through the red stage of development, as with our common blackberries. This is notably true of all succulent fruits—it is almost the opposite with those fruits that are not succulent, but which have hard or horny pericarps instead. These we generally distinguish as *nuts*.

Moreover, there are two classes of red fruits known to us in England, even among our common wayside trees, shrubs, and herbaceous plants. One is edible—the other is not. Perhaps the latter is even poisonous to us. Why then the sameness of colour and tempting succulency with such vastly different results—to us at least? The bright scarlet berries

of the yew, the bitter-sweet, white bryony, honeysuckle, and of the lords and ladies growing in the hedgerows, look quite as tempting, and frequently are quite as tempting to little children, as the similarly-coloured wild strawberries, raspberries, cherries, &c., but how different are their results. The former group is either poisonous or emetically disagreeable—the latter delicious and beneficial.

The fact is, the colours of most fruits were originally evolved by the agency of birds, just as those of flowers were by honey-loving insects. Birds can eat fruits which are to us deadly poisons. We have no berries among all our wild plants so poisonous to us as those of the common lords and ladies (*Arum Maculatum*), but thrushes and blackbirds eat them with impunity. So do sparrows the, to us, detestable fruit of the yew. The prevailing scarlet colours and colour tones of most fruits is for the purpose of catching the eyes of birds. Many such fruits have "stones" protecting the kernels or seeds. When the fruit is swallowed, the seeds are undigested, and the bird voids them at a distance, having been engaged as a carrier.



The First Music Lessons.

MRS. J. SPENCER CURWEN.

A music-seller in a country town told me a few days ago that a gentleman (a clever amateur pianist) recently said to him:—"Mr. —, my little lad is old enough now to learn the piano, and I should like to teach him, but am at my wits' end as to how to begin. Have you any books that will help me? The child is musically inclined, I think; he sings, and will stand by the piano and listen while I play to him, and I dread seeing this love for music killed by the drudgery of the first lessons."

To this point comes every parent, sooner or later. You have done your best to create a musical atmosphere in the nursery. You have sung the babies to sleep with quaint folk-song or tender lullaby; you have dandled them, wakening, to reel or rondo. Beginning with "Pat-a-cake, pat-a-cake, baker's man," they have gone through the baby curriculum of nursery songs to music new and old. You have sent them to the Kindergarten, or, if you lived where that was not possible, you have adopted Kindergarten plans at home; and the action songs, if slightly fatiguing to the elders, were very delightful to the little ones. You have, in fact, done all that you have been told to do, to the end that your children may be "musical." And they are. They love singing. They are never tired of illustrating musically how "the peasant reaps his barley and corn," or "the cobbler mends a shoe." Their little voices are sweet and well in tune, and their sense of rhythm is perfect. Ethel tries to pick out tunes on the piano, and Jack has announced his determination to "play the 'cello, like father." You begin to think about regular music lessons. Surely these children will take to them like ducks to water, and make rapid progress.